

Surface Maintenance Engineering Planning Program (SURFMEPP) Update

CAPT Michael Malone
Commanding Officer

Life Cycle Planning, Budgeting and Execution
to achieve Expected Service Life



Draft – Working Papers

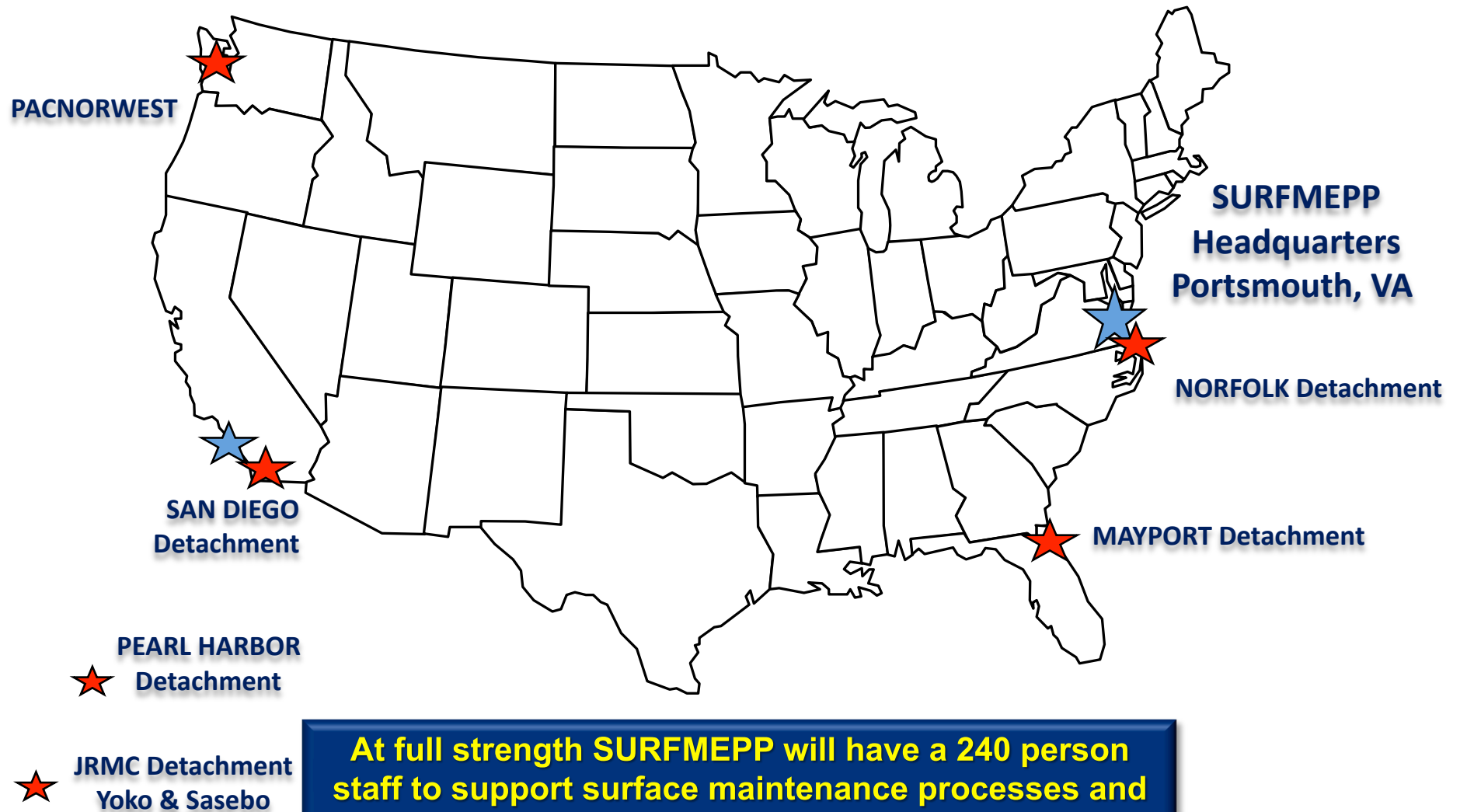


SURFMEPP Mission



- **Provides:**
 - **Centralized surface ship life cycle maintenance engineering**
 - **Ship Class maintenance and modernization planning**
 - **Management of maintenance strategies aligned with and responsive to National, Fleet, Surface TYCOM and NAVSEA needs and priorities**
- **Develops and issues:**
 - **Baseline Availability Work Packages for CNO availabilities**
 - **Supporting tools and processes to capture and analyze maintenance history, execution and return cost data for every availability**

SURFMEPP Footprint

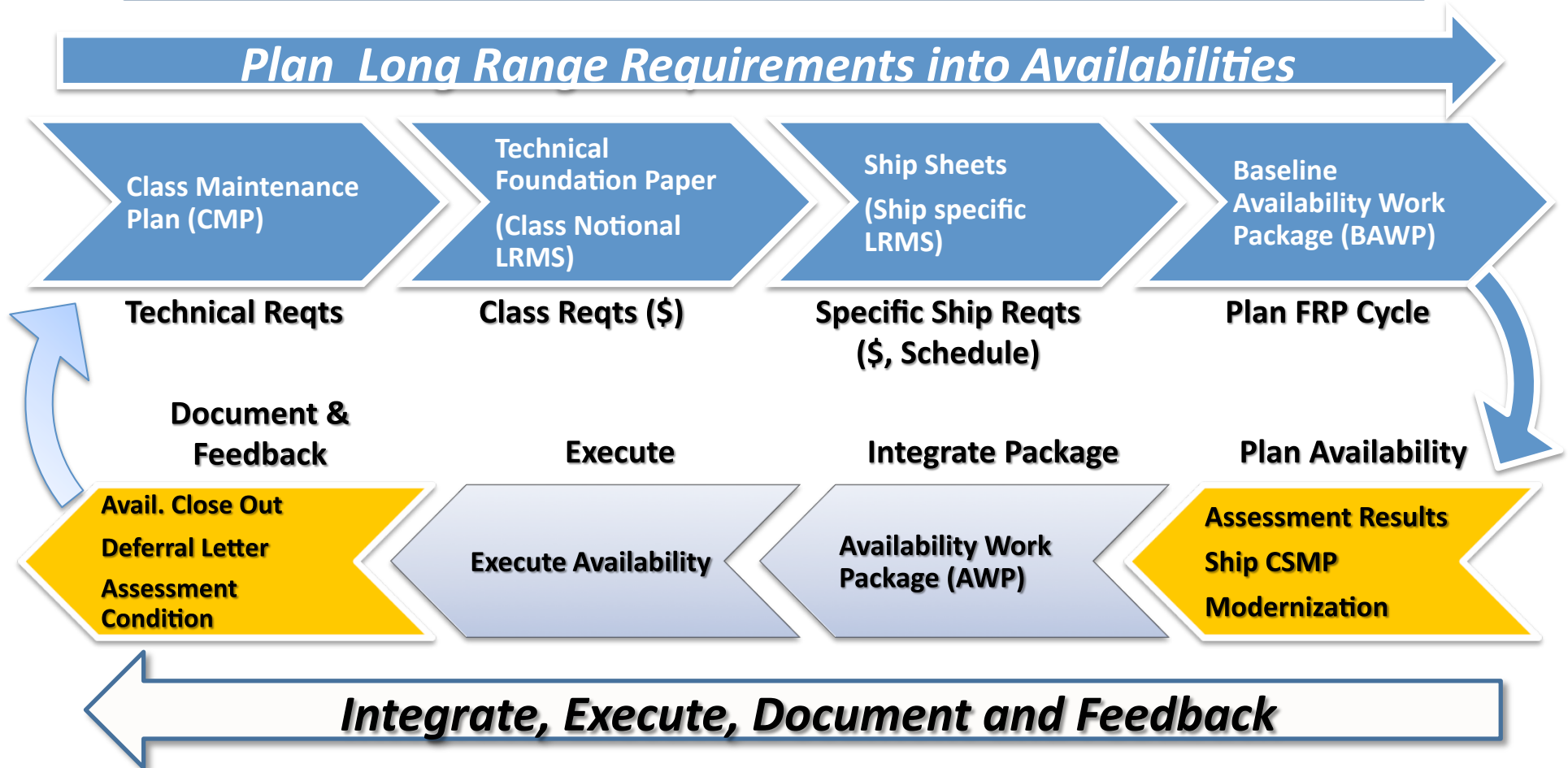


What SURFMEPP Delivers

- Library of technically-based requirements
 - Accurate assessment of each ship “fit for fight/fit for service”
 - Budget for what needs to be done
 - Maintenance planned in advance
 - Modernization and emergent repairs integrated
 - Document Condition
- Eliminates tribal knowledge and deckplate decisions
 - Readiness measured in capability. ISO tactical and strategic planning
 - Improves budget fidelity
 - Reduces execution surprises
 - Maintenance finishes on time and supports certification & training

Goal is to meet expected service life with no surprises

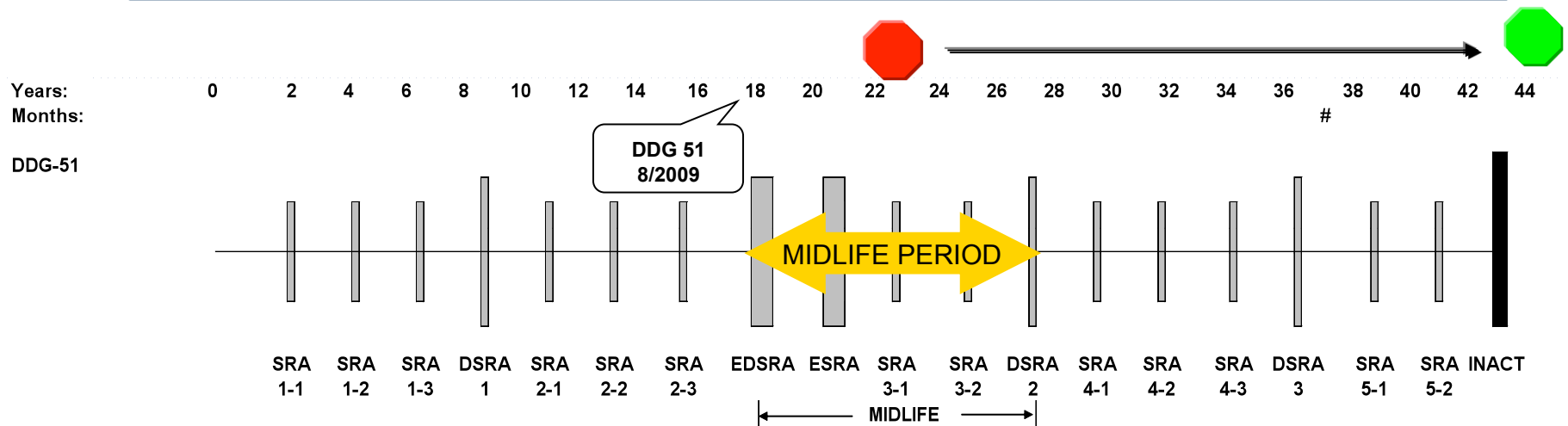
SURFMEPP Product Roadmap



Balancing Technical, Operational, and Financial Risk to increase Ao and decrease \$\$

SURFMEPP utilized best practices from SUBMEPP & CPA

DDG 51 Technical Foundation Paper



Months:	25	52	79	106	133	160	187	216	247	274	301	328	355	382	411	438	465	492	516	Delta at 35 Years
PR11 Tailor:	6.7	6.7	6.7	31.5	6.7	6.7	6.7	47.6	6.7	6.7	6.7	31.5	6.7	6.7					-	
OPNAVNOTE 4700 (8/09)	6.5	6.5	6.5	30.9	6.5	6.5	6.5	47.6	6.5	6.5	6.5	30.9	6.5	6.5					-	Baseline
TFP LRMS	3.8	7.9	8.6	35.2	6.5	11.8	6.7	52.1	27.4	12.2	8.7	39.6	6.7	7.8	8.6	34.5	6.6	11.1		63
TFP LRMS w/aging (Notional)	3.8	7.9	8.6	35.2	7.5	12.8	7.7	52.1	27.4	13.2	9.7	39.6	8.7	9.8	10.6	35.5	8.6	13.1		74

EDSRA mid life requirements spread out so that maintenance and program alts can be accomplished within contractual constraints.

Notional done by AVAIL

Supports 35 or 40 year Expected Service Life

Dependent on End of Life Strategy





























The plan to reach Expected Service Life exists... NOW WE HAVE TO EXECUTE IT

SURFMEPP FY12 Focus Areas and Status



- Baseline Availability Work Packages (BAWPs) and codification of E2E process
- Technical Foundation Papers
 - LPD-17 complete/ MCM TFP ECD Feb 12
 - DDG/CG/LSD/LHD-A completed in FY 10 (DDG 51 TFP Revision/Update in progress)
- Budget quality Ship Sheets for all Surface Ships ISO POM 14
- Class Maintenance Plan Strengthening
- Corrosion Control Leadership
- ABS Management
- Surface Team One Support
- BAWP-AWP KSN

SURFMEPP – TYCOM – RMC BAWP thru AWP Management

CLASS	FY-12	FY-13	FY-14
DDG	 60	 62	 62
CG	 14	 19	 20
LSD	 8	 12	 12
LHD	 7	 8	 8
LPD	 2	 5	 9
LCC	 1	 2	 2
MCM	 7	 14	 14
LCS	 1	 2	 4
PC		 6	 10
FFG		 0	 2
TOTAL	100	130	143

ALL SHIP CLASSES WILL BE IN THE End-to-End SURFACE MAINTENANCE PROCESS BY FY14



CURRENT STATUS/PROGRESS

- 62 BAWPs Delivered
- 32 BAWPs Turned Over to TYCOMs ISO AWP Development
- 8 Ships currently in Availability Execution
 - (6) LANT / (2) PAC

Summary



- **SURFMEPP is documenting and defending better budgets ISO life cycle requirements.**
 - We don't "own" the requirement - we manage it ISO Technical Warrant Holders
 - Requirements underpinned by technical rigor
 - Ship Sheets track the requirements across the budget cycle
- **SURFMEPP integrates stakeholder functions in support of the DISCIPLINED and RIGOROUS End-to-End surface maintenance process.**
 - Measurable, Repeatable, Sustainable
- **SURFMEPP is helping to change surface maintenance culture, on the waterfront, one ship at a time!**

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Looking to the Future ... ZUMWALT Class Guided Missile Destroyer



Backup



Contact Us

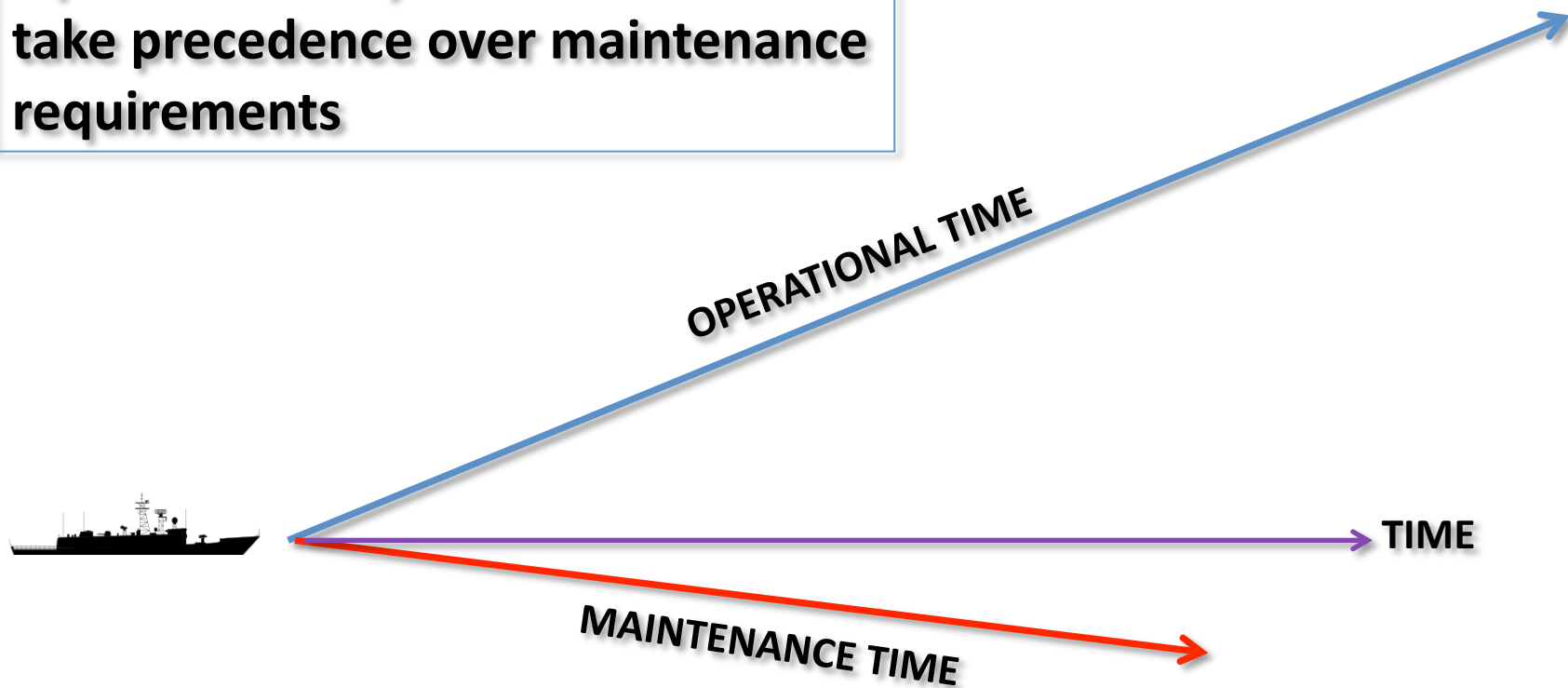


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Operations and Maintenance Almost Inversely Proportional



Operational requirements
take precedence over maintenance
requirements



Support of Fleet Initiatives



Corrosion Control Assistance Teams (CCAT)

- Training
- Technical Expertise
- Tools
- Technology Insertion

Estimate 25% of Ship Maintenance budget spent on corrosion issues



Expand In NFLK



Establish In MYPT



Integrate Paint Teams



Envelop Anti-Corrosion Covers

- Significant reduction in corrosion related maintenance.



All ships in FY 11



Water Tight Doors

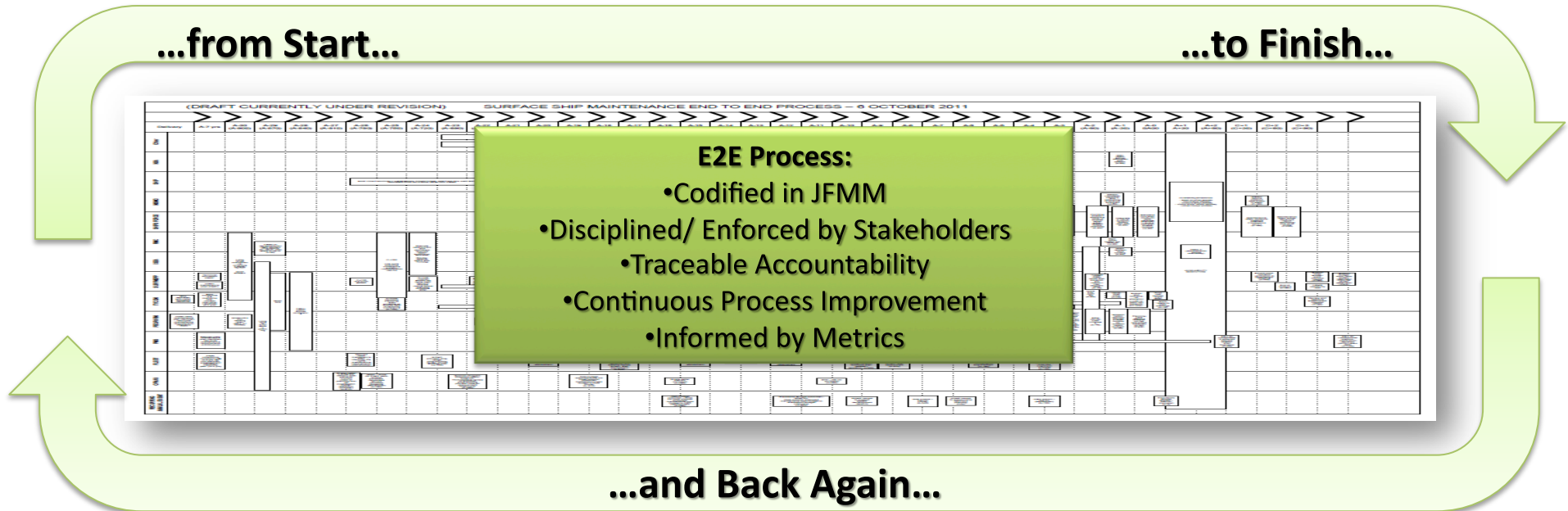
- Fluidized Bed Coating provides complete coverage in gaps and cracks.



Surface Maintenance, Modernization, and Sustainment End-to-End Process Map



Tracking and Measuring Results of each Ship across the FRP Cycle



*Timely Risk Management

E2E Process Map Adherence only successful with joint enforcement from TYCOM, NAVSEA21, SURFMEPP and CNRMC.

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Life Cycle Investment Tool Box



Class Maintenance Plan (CMP)

- “Maintenance Manual” of each Ship Class

Technical Foundation Paper (TFP)

- Notional “1.0” maintenance requirement by ship class across Expected Service Life (ESL).
- Modeled after SUBMEPP/CPA papers to identify and capture technical requirements
- Period of coverage: Class expected service life (e.g. DDGs: 35 year ESL, LSD 41/49: 40 year ESL)

Ship Sheets

- Maintenance requirement in man-days by hull across the FYDP
- Supports yearly POM/PR process
- Captures requirements from TFP, previously deferred maintenance and known modernization requirements

Baseline Availability Work Package (BAWP)

- Mandatory life-cycle maintenance requirements to support 27-month cycle

Availability Work Package (AWP)

- Refines CNO depot availability package within A-360...balances life-cycle and current readiness